PROCEEDINGS OF THE

ROYAL ENTOMOLOGICAL SOCIETY

OF LONDON

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GENERAL MEETING

WEDNESDAY, 2ND OCTOBER, 1946, **at 5.30 p.m.**

AGENDA

1. Confirmation of the Proceedings of the General Meeting held on 5th June, 1946.
2. Recommendations of candidates for Fellowship.
3. Announcement of election of new Fellows.
4. Additions to the Library.

Presented.

Barnes, H. F.: *Gall midges of economic importance.* Vols. 1–2. 8vo. London, 1946.

Fletcher, T. Bainbrigge: *The Cotteswold Naturalists' Field Club, 1846–1946.* 8vo. Gloucester, 1946. [The author.]

Snodgrass, R. E.: *The skeletal anatomy of fleas* (*Siphonaptera*). [*Smithson. misc. Coll.* **104**, 1946.]

Palmer, M. G. (Editor): *The fauna and flora of the Ilfracombe district of North Devon.* 8vo. Exeter, 1946.

Beihefte zur Schweizerischen Bienen-Zeitung. Heft. 1–11. Aarau 1941–46. [Mr. A. Welti.]

Purchased.

Verity, R.: *Le Farfalle diurne d'Italia.* Vols. 1–2. 4to. Florence, 1940–1943.

In addition, separates have been presented by Dr. C. P. Alexander, Dr. A. Avinoff, Dr. J. A. Freeman, Dr. S. H. Jayewickreme, Dr. K. H. L. Key, Dr. A. M. Massee, Dr. D. Miller, Mr. B. L. Mitchell, Mr. B. D. Wragge Morley, Professor F. Silvestri, the American Entomological Society, the Imperial Institute of Entomology, the United States Department of Agriculture, and the University of Michigan.

5. Admission of Fellows.
6. Papers accepted for publication in the *Transactions.*
7. Communications.

(1) **Dr. J. R. Busvine.**

The pigmentation of the Body Louse, *Pediculus humanus* L.

[Abstract.]

The pigmentation of body lice varies considerably in different specimens. The coloration is profoundly influenced by the darkness of the background on which the insects live up to the time of the last moult. This ability to respond to the background is heritable, so that dark and light strains can be selected though reared on similar backgrounds. The difficulty of isolating pure strains and the results of cross mating experiments suggest that several genes are involved.

(2) **Professor J. Needham** (a visitor).

The relationship of the biological sciences, including entomology, to the United Nations Educational, Scientific and Cultural Organisation.

(3) **Dr. E. Ungureanu** (a visitor).

A method of identifying the adults of at least two varieties of *A. maculipennis* Meigen by the shape and size of the squame and plume scales of the wings.

If circumstances permit, tea will be served in the Library before the meeting, but it is regretted that it is not now possible to provide cakes, as in the past.

PROCEEDINGS OF THE GENERAL MEETING HELD ON 5TH JUNE, 1946.

Professor G. D. Hale CARPENTER, M.B.E., D.M., President, in the Chair.

Present, 53 Fellows and 10 Visitors.

The minutes of the meeting held on 1st May, 1946, were confirmed, and signed by the President.

The names of the following candidates for election were read :—For the first time : Miss Vere Temple, F. H. Latham, J. N. Thornton, J. J. Steyn, J. F. Graham and N. A. Janjua, M.Sc.

For the second time : J. L. C. Banks, R. M. Handfield-Jones, M.C., M.S., F.R.C.S., H. G. Khalsa, M.Sc., Francis J. Griffin, A.L.A., Lt.-Col. W. G. B. Hawley, D.S.O., W. H. R. Lumsden, B.Sc., M.B., Ch.B., E. T. Nielsen, Dr.Phil., S. Pradhan, D.Sc., and F. C. Reeve.

The Secretary announced that the following had been elected Fellows of the Society :—E. H. Sills, Lamorna, 32, Woodside Avenue, Coventry, and B. P. Moore, 81 Burnham Way, West Ealing, London, W. 13.

Thanks were voted to donors of gifts to the Library since the last meeting.

Dr. N. Bolwig, Mr. R. T. Harper and Mr. H. E. Hammond signed the Obligation Book and were admitted as Fellows.

The following papers accepted for publication in the *Transactions* were read in title :—

" Studies on the Homoptera of Turkey," by A. A. Zakhvatkin.

" Ethiopian CULICIDAE, tribe Megarhinini—notes and descriptions," by Mrs. G. R. C. Van Someren.

"Observations on the behaviour of *Ephestia elutella* Hübner (Lepidoptera, PHYCITIDAE) breeding on bulk grain," by N. Waloff and O. W. Richards.

"The study of a population of *Ephestia elutella* Hübner (Lepidoptera, PHYCITIDAE) living on bulk grain," by O. W. Richards and N. Waloff.

"Larvae of British Trichoptera: introduction, general morphology, key to the families, etc.," by N. E. Hickin.

"Observations on the Odonata of Tobago, B.W.I.," by D. C. Geijskes. [Communicated by Dr. E. McC. Callan.]

"Seasonal variation in the migrant butterfly *Danaus plexippus plexippus* L.," by G. Beall. [Communicated by Dr. C. B. Williams.]

"Evolution of the insect larva," by S. H. Chen. [Communicated by Dr. A. D. Imms.]

"On larvae of the NOCTUIDAE (Lepidoptera) II," by J. C. M. Gardner.

"The immature stages of the Carrot Fly," by D. G. Ashby and D. W. Wright.

Communications were made by Dr. W. H. Thorpe, Professor G. D. Hale Carpenter (President), and Mr. J. Leclercq, abstracts of which appeared on pp. 19–20.

In the discussion which followed Dr. Thorpe's talk Dr. D. J. Crisp said that the shape of the individual hairs and their regularity demonstrated a remarkable adaptation towards a highly efficient plastron. If the hairs were merely vertical protrusions of the cuticle they would support a relatively small pressure difference and readily become wetted; hairs arranged as a parallel network tangential to the surface supported a far higher pressure and were difficult to wet. Substantially this arrangement was found in all three classes of plastron-bearing insects, the hairs being bent over at the tips and providing a horizontal mesh.

In the discussion which followed Mr. Leclercq's communication, Dr. Wigglesworth drew attention to the remark that butterflies bred in saturated air were unable to expand their wings completely. Dr. Wigglesworth thought that the normal swallowing of air was probably interfered with in saturated specimens, and this was known to prevent a full expansion of the wings. Mr. Leclercq said that he had not been able himself to investigate this point in detail.

In addition, the President exhibited a grass, *Setaria verticillata* (L.) Beauv. from East Africa which had trapped large numbers of butterflies, mostly *Acraea zetes* L. (A fuller account will appear in *Proceedings Series A*.) Dr. C. B. Williams said that evidence existed of migration among species of *Acraea* and a single migration might explain this phenomenon. If, however, the occurrence persisted over a long period, that could not be the explanation.

Mr. R. F. Bretherton exhibited living fungus-feeding larvae of the moth *Parascotia fuliginaria* L. The larvae had been found on fungus on the under sides of pine and birch trees in West Surrey and East Berkshire, larger numbers being found on pines, but those on birch trees were found to feed up earlier and become bigger. In all cases the larvae were very sensitive to strong light. Mr. H. S. Hanson exhibited specimens of *Grapholitha zebeana* Ratzeburg, a pest on larch in Central Europe, together with examples of the damage caused by it. So far as he had been able to ascertain, this species had not previously been recorded in Britain. He had first found the larvae and galls during the autumn of 1944, but did not obtain the adult until May, 1946, when a number of moths were bred out from material collected during the spring. He had also collected adults near East Harling on 2nd June, 1946. The insect was well established as a breeding species in all the larch plantations around Thetford, Norfolk. The insect had a two-year life-cycle. The larva burrows in the cambium region in the axil of the stem and a branch, or a branch and side branch, causing a gall-tube formation. In some cases the gall becomes infested with the larch canker fungus *Dasyscypha calycina* Fuckel. The fungus turns the gall into a canker and may cause serious damage.

N. D. Riley, *Hon. Secretary.*

ADMISSION OF FELLOWS.

Any Fellow who has not been formally admitted to the Society under Chapter XIV, Section 4 of the Bye-Laws and attends the meeting on 2nd October, 1946, is requested to inform the Society before 5.15 p.m. on that date.

The next Meeting will be held on Wednesday, 16th October, 1946, **at 5.30 p.m.**

NOTICE.

Biological Council.

The principal objects of the Biological Council, as at present constituted, are the circulation amongst its members of information concerning the activities of Societies covering the biological sciences, in the hope that by this means the constituent Societies and their members may be enabled to correlate activities and to keep in touch more easily with developments in each other's fields. Representatives of the Society attended the series of informal meetings which led to the formation of the Biological Council.

Certain steps already taken by the Biological Council are of interest to Fellows :—

(i) By arrangement with the Linnean Society, that Society's library is available to members of all societies subscribing to the Biological Council for reference purposes during the normal hours of opening on presentation of evidence of membership of an affiliated Society.

(ii) Also by arrangement with the Linnean Society, that Society's Lecture and Committee rooms are available, for the purpose of meetings, to any of the Societies who are members of the Biological Council; and such Societies may use the Linnean Society's address for the purpose of their own correspondence.

(iii) A *Biological Calendar*, giving the dates and times of the meetings of members and other Societies of interest to biologists, and also other relevant fixtures and dates, is being prepared, the first two issues having been circulated to the Secretaries of affiliated Societies.

(iv) A scheme is being worked out for circulating, on publication, lists of the titles of papers published by the member societies.